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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/653,713

09/05/2000

Stephen R. Carter

6647-15

8261

45842

7590

10/10/2006

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EXAMINER

SPOONER, LAMONT M

ART UNIT

PAPER NUMBER

2626

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/653,713

Applicant(s)

CARTER ET AL.

Examiner

Lamont M. Spooner

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 31 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-16, 23 and 24 is/are allowed.
- 6) ☒ Claim(s) 1-13, 25 and 26 is/are rejected.
- 7) ☐ Claim(s) 17-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see remarks, filed 12/15/05, with respect to the claims have been fully considered and are persuasive. The 35 USC 103 rejection of the claims has been withdrawn.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-13, 25 and 26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1 and 6 merely cites descriptive steps, interpreted as an abstract idea, without any tangible, useful, concrete result, or physical transformation.

Dependent claims 2-5, and 7-13 are also rejected, as their parent claims are rejected.

Claim Objections

4. In a conversation with Ariel Rogson on 8/2/06, the suggested amendment was agreed upon, by Examiner's amendment, however due to the ensuing office action, Applicant is suggested to perform the following amendment.

In claim 17, line 8, after "directed set" add - -the directed set including a plurality of concepts only one of which is a maximal element, directed links defining "is a" relationships between concepts in pairs of concepts, so that each concept is either a source or a sink of at least one directed link, and a plurality of chains extending from the maximal element to each concept along the direct links, where for each pair of concepts in each chain, one of the pair of concepts is a lineal ancestor of the other of the pair of concepts", in line 8, after "and" add - -each of the first plurality of state vectors in the topological vector space- -, in lines 9 and 10, replace "each of a plurality of chains of an intentional stance basis in the directed set" with - -each intentional stance basis chain in a subset of the plurality of chains in the directed set- -.

Allowable Subject Matter

5. Claims 14-16, 23 and 24, and are allowed.
6. The following is an examiner's statement of reasons for allowance:

The instant application is deemed to be directed to a non-obvious improvement over the invention patented in Conklin and in view of Ontology Development for Machine Translation Ideology and Methodology. The improvement comprising, regarding claim, 23 having one concept as a maximal element, establishing intentional stance basis chains in the directed set from the maximal element to each concept along the directed links, selecting a subset of the intentional stance basis chains to form a **basis**, creating a state vector, wherein each state vector in the topological vector space includes at least one **measure of how concretely** the **corresponding** selected concept is represented in **each intentional stance basis** chain in the basis, assembling the state vectors in the topological vector space into a template, and associating an action with the template.

Regarding claim 14, the improvement comprising, having only one concept identified as a maximal element, an intentional stance basis including a subset of the plurality of chains in the directed set, a state vector in a topological vector space corresponding to the selected concepts, each state vector in the TVS including at least one measure of how concretely the corresponding concept is represented in each chain the

intentional stance base; a template including the state vectors in the TVS and an action associated with the template.

Regarding claim 24, the improvement comprising a directed set including only one concept as a maximal element, and a plurality of chains extending from the maximal element to each concept along the directed links, each of the first plurality of state vectors in the TVS includes at least one measure of how concretely the corresponding concept is represented in each intentional stance basis chain in a subset of the plurality of chains in the directed set, capturing an impact summary including a second plurality of state vectors in the TVS, comparing the impact summary with the template

7. **Claims 15 and 16**, are allowed as their parent claims are deemed allowable.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Mahesh, "Ontology Development for Machine Translation Ideology and Methodology" 1996, teaches maximal element and directed links, the directed links defining an "is a" relationship.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lamont M. Spooner whose telephone number is 571/272-7613. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571/272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER

lms
8/2/06